

Fate Report for Case # L-13-0727

Fate

Summary Statement

Fate L-13-0727

Summary

Statement: FATE:

log Kow = -0.90 (E)

S

> 10 g/L at 25 C (E)

VP = 4.4E-2 torr at 25 C (E)

BP = 209 C

(E)

H = 1.15E-6 (E)

log Koc = 0.97 (E)

log Fish BCF = 0.50 (E)

log Fish BAF = -0.05 (E)

POTW removal (%) = 0-25

Time for

complete ultimate aerobic biodeg = wk

Sorption to soils/sediments =

low

Volatilization half-life from a standard river = 570 hrs

Volatilization half-life from a standard lake = 260 da

Atmospheric

Oxidation Half-life = 120 hr via OH radical

PBT Potential: P2B1

*CEB FATE: Migration to ground water =
rapid

CBI:

Fate

Assessor:

SMILES:

Physical Properties

Property	Measured/Calculated Value	EPI
Molecular Form:		

Property	Measured/Calculated	EPI
Molecular Wt.:		
%		
< 500:		
%		
< 1000:		

Property	Measured Value	Method	Estimated Value	Method	EPI
Melting Point:		Exp.			
Boiling Point:			209	EPI	209.15
BP Pressure:			@760		@760
Vapor Pressure:			0.04	EPI	4.41e-002
Water Solubility:			382	EPI	
Log P:			-0.90		
Log Kow:					-0.90
Log Koc:					0.97
Log BCF:					3.1600
Henry's Law:					1.15e-006

pH:
pH
Comment:

Fate Analysis

Hydrolysis (t1/2, da):	Volatilization (t1/2)	Volatilization (t1/2)
	- River (hr):	- Lake (da):
Atm Ox Potential (t1/2)OH (hr):	Atm Ox Potential (t1/2)O3 (hr):	Atm Ox Potential (t1/2) Total (hr):
MITI Linear:	MITI NonLinear:	

Biodeg Linear:		Biodeg	
		NonLinear:	
Biodeg Survey		Biodeg Survey	
ult:		Prim:	
STP (% removal)	1.9100	STP (% removal)	0.0900
Total:		Biodeg:	
STP (% removal)	1.7500	STP (% removal)	0.0700
Ads:		Air:	

Rationales

Removal in
Wastewater
Treatment:
Atmospheric
Oxidation:
Hydrolysis:
Photolysis:
Aerobic
Biodegradation:
Anaerobic
Biodegradation:
Sorption
to Soil and
Sediment:
Migration to
Groundwater:
Persistence - Air:
Persistence
- Water:
Volatilization
from Water:
Soil:
Sediment:
Other:
Standard:
Bioaccumulation:

PBT Ratings

Persistence	Bioaccumulation	Toxicity	PBT Comments
2	1	Awaiting Human Health Entry	
		Awaiting Human Health Entry	
		Awaiting Human Health Entry	

Persistence	Bioaccumulation	Toxicity	PBT Comments
Awaiting Human Health Entry			
Awaiting Human Health Entry			

Exposure-Based Testing

Exposure-Based Testing:

Fate Ratings

Removal in WWT/POTW

(Overall):

Removal in 0-25 WWT/POTW (Overall):

Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
WWT/POTW Sorption:	1	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	3-4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:		Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	2	<= Days	Weeks	Months	> Months	
Aerobic Biodeg Prim:	1-2	<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Ult:	2-3	<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Hydrolysis (t1/2 at pH 7,25C) A:		<= Minutes	Hours	Days	>= Months	
			Hours	Days		

Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes			>= Months	
Sorption to Soils/Sediments:	4	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	4	Negligible	Slow	Moderate	Rapid	
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	

Bio**Comments:**

Bio Fish log BAF = Comments: -0.05.
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Fate Comments:

Fate Comments:

Comments/Telephone Log

Artifact	Update/Upload Time
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